SANTA CRUZ BIOTECHNOLOGY, INC.

TM7SF2 siRNA (h): sc-96408

BACKGROUND

Transmembrane 7 superfamily member 2 (TM7SF2, Sterol C14-reductase, 3β-hydroxysterol Delta-reductase) is a 418 amino acid gene product that belongs to the ERG4/ERG24 family. TM7SF2 is a seven pass transmembrane protein that can localize to the membrane of the endoplasmic reticulum. TM7SF2 is involved in the conversion of lanosterol to cholesterol and, specifically, catalyzes the NADPH dependant reduction of 4,4-dimethyl-5-α-cholesta-8,14,24-trien-3-β-ol to 4,4-dimethyl-5-α-cholesta-8,24-dien-3-β-ol and $NADP^+$.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TM7SF2 (human) mapping to 11q13.1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

TM7SF2 siRNA (h) is a pool of 2 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TM7SF2 shRNA Plasmid (h): sc-96408-SH and TM7SF2 shRNA (h) Lentiviral Particles: sc-96408-V as alternate gene silencing products.

For independent verification of TM7SF2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-96408A and sc-96408B.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TM7SF2 siRNA (h) is recommended for the inhibition of TM7SF2 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TM7SF2 gene expression knockdown using RT-PCR Primer: TM7SF2 (h)-PR: sc-96408-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.